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prior art references, when combined, must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure (MPEP 2142). The prior art must suggest the desirability of the claimed invention (MPEP 2143.01).

Both Fulton and Hendershot, Jr relate to reluctance motors having a rotor and a stator, wherein the rotor is made of a magnetic material and has raised teeth facing the main poles of the stator.

To the contrary, a rotor of the present invention is made of a cylindrical permanent magnet magnetized in the circumferential direction so as to form N and S poles alternately. A rotor of the present invention has no raised teeth.

A motor of the present invention is rotated differently from the motors disclosed in the cited references, and has benefits over the prior art.

Noise and oscillation are reduced, because the distribution of magnetic flux in the air gap becomes as like a sine wave.

Efficiency is high, because the electric current passing through the winding is smaller due to the permanent magnet.

Control of a motor of the present invention is easier than in the cited references, because the present invention has a property of linearity wherein the torque is increased in proportion to the electric current.

A rotor of the present invention is formed of a permanent magnet, and driven by torque consisting of the repulsive torque and of the attractive torque with respect to the stator pole. In both Fulton and Hendershot, Jr., the toothed rotor is driven only by the attractive torque. Further, the motor of the present invention is different in winding arrangements and direction of the electric current from the motors disclosed in Fulton or Hendershot, Jr.

Thus, the cited references do not disclose or suggest a rotor of a cylindrical permanent magnet magnetized in the circumferential direction, as recited in independent claims 1, 11 and 16. The examiner has provided absolutely no motivation to modify the prior art to arrive at the claimed invention.

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Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 1 - 3 under 35 USC § 103.

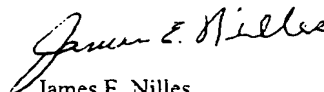
**CONCLUSION**

Based on the foregoing amendments and remarks, Applicant respectfully submits this application is in condition for allowance. Favorable consideration and prompt allowance of all pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

The Commissioner is hereby authorized to deduct any additional fees arising as a result of this Amendment or any other communication from, or to credit any overpayments to, Deposit Account No. 14-1080.

Respectfully submitted,

  
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Date: September 3, 2002

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